Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1-50. (Canceled)

51. (Previously presented) A device constructed for immobilizing bio-material capable of being associated with a fluorophore tag for optically-stimulated fluorescent emission analysis, comprising a layer of nitrocellulose or polystyrene of thickness less than 5 micron adhered to a rigid support via one or more adherent intervening layers, the layer of nitrocellulose or polystyrene having an outer deposit-receiving surface in treated state for enhanced immobilization of the bio-material.

52. (Previously presented) The device of claim 51 in which the layer is microporous.

53. (Previously presented) The device of claim 51 in which the layer is a solid film of thickness less than about 1 micron.

54. (Previously presented) The device of claim 51 in which the solid film is between about 0.1 and 0.5 micron in thickness.

55. (Previously presented) The device of claim 51 in which the treated state of the outer surface of the layer is the result of exposure of the surface to an energetic surface-altering condition.

56. (Previously presented) The device of claim 55 in which the treated state is the result of exposure of the surface to corona treatment.

57. (Previously presented) The device of claim 55 in which the treated state is the result of exposure of the surface to charged particles.

58. (Previously presented) The device of claim 55 in which the treated state is the result of exposure of the surface to gamma radiation.

59. (Previously presented) The device of claim 55 in which the treated state is the result of exposure of the outer surface to at least one of corona treatment, flame treatment, bombardment by charged particles comprising electrons, ions or sub-atomic particles, or electromagnetic radiation of ultraviolet, gamma or X-ray wavelength.

60. (Previously presented) The device of claim 51 in which the layer is a dried residue of a coating solution of nitrocellulose or polystyrene and a volatile solvent.

61. (Previously presented) The device of claim 60 in which the layer of nitrocellulose or polystyrene comprises a drawn coating.

62. (Previously presented) The device of claim 51 in which an intervening layer is comprised of an adherent metal oxide or a silicon-based material.

63. (Previously presented) The device of claim 51 in which an intervening layer is comprised of tantalum oxide.

64. (Previously presented) The device of claim 51 in which an intervening layer is comprised of silane.

65. (Previously presented) The device of claim 51 in which the rigid support is of glass and an adherent intervening layer is an adhesion-promoting layer comprised of silane, epoxy silane, polylisine, PEI, GAP, an adherent metal oxide, colloidal silica or a soluble silicate.

66. (Previously presented) The device of claim 51 in which the rigid support is transparent and an intervening layer is substantially opaque.

67. (Previously presented) The device of claim 66 in which the substantially opaque intervening layer is comprised of tantalum oxide.

68. (Previously presented) The device of claim 51 in which the outer surface of the layer of nitrocellulose or polystyrene is constructed and arranged to be exposed for illumination and analysis from the exterior, the rigid support being transparent and the one or more intervening layers being collectively sufficiently opaque to substantially block, from entering the rigid support, radiation of wavelengths corresponding to the stimulating and emission wavelengths of a fluorophore associated with the immobilized bio-material.

69. (Previously presented) The device of claim 51 in which the rigid support, the one or more intervening layers and the layer of nitrocellulose or polystyrene collectively are functionally transparent to light to enable optical excitation of a fluorophore associated with a deposit of biological material on said outer surface by excitation radiation passing through said rigid support, or to enable microscopic analysis through said rigid support of optically-stimulated fluorescent emissions passing from a fluorophore associated with a deposit of biological material on said surface, or to enable both.

70. (Previously presented) The device of claim 69 in which an intervening layer is functionally transparent silane or tantalum oxide.

71. (Previously presented) The device of claim 51 in which an intervening layer is a drawn coating.

72. (Previously presented) The device of claim 51 in which the outer surface of the layer of nitrocellulose or polystyrene is generally flat, arranged to receive deposit of a spotted array of biological material.

73. (Previously presented) The device of claim 51 including an array of spots of bio-material deposited on the layer or nitrocellulose or polystyrene.

74. (Previously presented) The device of claim 73 in which the array of spots of bio-material comprises protein, peptides, antibodies, viruses, or nucleic acid or other genetic material, receptors, cDNA clones, DNA probes, oligonucleotides including synthetic oligonuceleotides, or polymerase chain reaction (PCR) products, or plant, animal, human, fungal or bacterial cells, or malignant cells or cells from biopsy tissue.

75. (Previously presented) The device of claim 51 wherein the rigid support is in the form of a microscope slide.

76. (Previously presented) The device of claim 51 comprising a layer in the form of a coating of nitrocellulose of thickness less than about 1 micron, the layer of nitrocellulose having an outer surface in treated state as the result of corona treatment or exposure to charged ions, the rigid support comprising glass, the layer of nitrocellulose being adhered to the rigid glass support via an intervening adhesion-promoting layer comprised of tantalum oxide or silane.

77. (Previously presented) The device of claim 76 in which the nitrocellulose layer is a solid film of thickness between about 0.1 and 0.5 micron.

78. (Previously presented) The device of claim 76 in which the layer of nitrocellulose is a drawn coating.

79. (Previously presented) A device for immobilizing material capable of becoming associated with a fluorophore or luminescent tag for optical emission analysis, comprising a deposit-receiving layer of a polymer capable of binding with the material, the layer having a thickness less than about 5 micron, the layer of polymer adhered to a rigid support via one or more adherent intervening layers, the layer of polymer having an outer deposit-receiving surface in treated state for enhanced immobilization of the material, as the result of exposure of the surface to an energetic surface-altering treatment.

80. (Previously presented) The device of claim 79 in which the polymer layer is selected to immobilize protein or cellular bio-material.

81. (Previously presented) The device of claim 79 in which the treated state is the result of exposure of the outer surface to corona treatment.

82. (Previously presented) The device of claim 79 in which the treated state is the result of exposure of the outer surface to at least one of corona treatment, flame treatment, bombardment by charged particles comprising electrons, ions or sub-atomic particles, or electromagnetic radiation of ultraviolet, gamma or X-ray wavelength.

83. (Previously presented) The device of claim 79 in which the adhesion-promoting layer between the layer of polymer and the rigid support is comprised of tantalum oxide or silane.

84. (Previously presented) The device of claim 79 in which the rigid support is of glass and an intervening adhesion-promoting layer between the polymer layer and the rigid support is comprised of silane, epoxy silane, polylisine, PEI, GAP, an adherent metal oxide, colloidal silica or a soluble silicate.

85. (Previously presented) The device of claim 80 in which the layer is a dried residue of a coating solution of the polymer and a solvent.

86. (Previously presented) The device of claim 85 in which the polymer layer is a drawn coating.

87. (Previously presented) The device of claim 79 in which the polymer layer is of thickness less than one micron.

88. (Previously presented) The device of claim 79 in which the polymer layer is of thickness between about 0.1 and 0.5 micron.

89. (Previously presented) The device of claim 79 in which the outer surface of the polymer layer is generally flat, arranged to receive deposit of a spotted array of bio-material.

90. (Previously presented) The device of claim 79 including an array of spots of bio-material on the layer.

91. (Previously presented) The device of claim 90 in which the array of spots of bio-material comprises protein, peptides, antibodies, viruses, or nucleic acid or other genetic material, receptors, cDNA clones, DNA probes, oligonucleotides including synthetic oligonuceleotides, or polymerase chain reaction (PCR) products, or plant, animal, human, fungal or bacterial cells, or malignant cells or cells from biopsy tissue or other bio-material.

92. (Previously presented) The device of claim 79 wherein the rigid support is in the form of a microscope slide.

93. (Previously presented) The device of claim 79 in which the outer surface of the polymer layer is constructed and arranged to be exposed for illumination or analysis from the exterior, the rigid support being transparent and the one or more intervening layers being collectively sufficiently opaque to substantially block light from the rigid support.

94. (Previously presented) The device of claim 93 in which the intervening layer is comprised of tantalum oxide.

95. (Previously presented) The device of claim 79 in which the rigid support, the one or more intervening layers, and the layer of polymer are collectively functionally transparent to light to enable optical excitation of a fluorophore associated with a deposit of material on said outer surface by excitation radiation passing through said rigid support, or to enable microscopic analysis through said rigid support of emissions from a fluorophore or luminescent tag associated with a deposit of material on said substrate layer, or to enable both.

96. (Previously presented) The device of claim 95 in which the intervening layer is functionally transparent silane or tantalum oxide.

97. (Previously presented) A method of forming the device of claims 51 or 79, comprising providing the rigid support with the one or more adherent intervening layers and forming thereon the polymer layer as a coating.

98. (Previously presented) The method of claim 97 in which the coating is formed by applying a coating solution of the polymer and a volatile solvent to an intervening layer on the rigid support, and evaporating the solvent to form the coating layer as a dried residue.

99. (Previously presented) The method of claim 98 in which the coating is applied to the support by drawing the support from a bath of the solution.

100. (Currently amended) The method of claim 97~~, 98, or 99~~ followed by exposing the exposed surface of the coating to an energetic surface-altering treatment to enhance the immobilization properties of the coating.

101. (Previously presented) The method of claim 100 in which the treatment is treatment by corona or charged ions.

102. (Previously presented) A method of emission analysis comprising providing the device of claim 51 or 79, applying an array of spots of material to the outer deposit-receiving surface of the polymer layer, conducting an assay which tags at least some of the spots with a fluorescent or luminescent label, and, after washing the array, reading the array by optical detection.

103. (Previously presented) The method of claim 102 in which reading is accomplished by a CCD sensor.